# Components of the Cable Restraint

#### **Relaxing Locks**

A wide variety of relaxing locks are available. However, in Wisconsin we only allow the reverse-bend washer lock of  $1^{1}/_{4}$  inch diameter or larger.

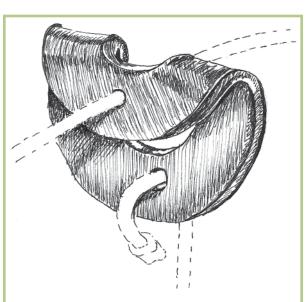
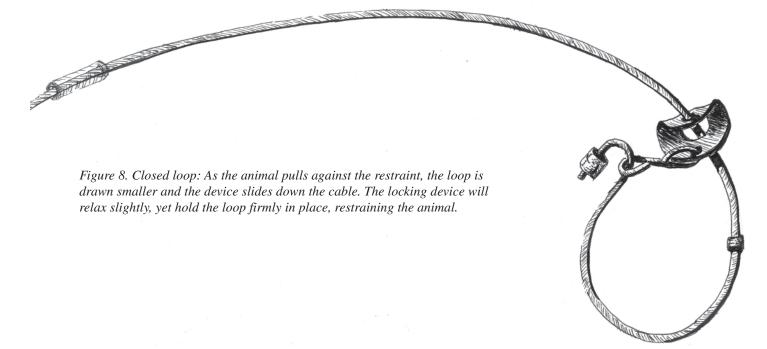


Figure 6. Relaxing Lock: In Wisconsin the reverse-bend washer lock must be 1 <sup>1</sup>/<sub>4</sub> inches in diameter or larger to assure good performance.



Figure 7. Open Loop: The relaxing lock is a critical part of the cable restraint. The restraint loop is set to allow the animal to enter, which then closes firmly but does not cause discomfort to the restrainted animals.



#### **Ferrules**

Ferrules are used to hold the lock on a cable restraint, or with special tools, can become the breakaway as well. They are also used to hold the swivel on a cable. Ferrules are hammered or crimped onto the cable restraint.





Figure 9. Steel Nut ferrule: Special steel nuts are often used as ferrules. These nuts are heat treated to keep them from cracking when hammered.





Figure 10. Wire ferrule: Coiled steel wire is also used as a ferrule. Once slipped over the cable, it is then hammered in place.





Figure 11. Aluminum ferrule: Single aluminum ferrules are often used.



Figure 12. Double end ferrule: A double ferrule is used to form a loop on one end of a restraint cable.



Figure 13. Cable loop with the double end ferrule A double end ferrule provides a secure loop, important when using earth anchors.





Figure 14. Breakaway ferrule: The aluminum breakaway ferrule rated at 285 lbs or less and is one of two options available in Wisconsin.

#### **Swivels**

In Wisconsin a cable restraint must be equipped with a swivel. Some swivels provide a means for anchoring the restraint, while all swivels provide additional comfort to the animal. Swivels reduce the risk of badly kinked or twisted cable and help to keep the set functional. It is recommended to use multiple swivels if possible.



Figure 15. End Swivel: End swivels for cable restraints are most commonly made out of wire. We recommend #9 gauge wire or larger.



Figure 16. End Swivel + Box Swivel: An end swivel, in combination with a box swivel is recomended.

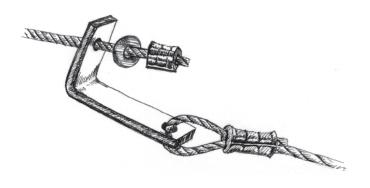


Figure 17. In-line swivel: An in-line swivel has a distinct advantage in areas where you have thick grasses and sedges.

#### **Loop Stops**

Maximum and minimum loop stops are required on dry land cable restraints. These stops prevent the cable from expanding beyond a 12-inch diameter loop or from closing past a minimum of a  $2^{1}/_{2}$  inch diameter loop. The maximum stop prevents larger animals from entering the restraint while the minimum loop prevents the restraint from closing around an animals foot.

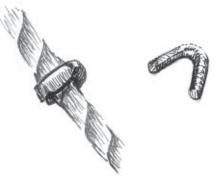


Figure 18. Loop Stop-Horseshoe: Heavy gauge wire can be crimped and hammered on the restraint cable to create a stop.

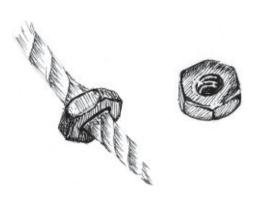


Figure 19. Loop Stop—Nut: In similar fashion tempered steel nuts can be hammered onto the cable as a stop device.

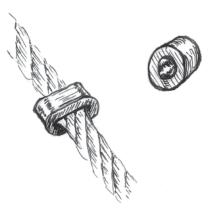


Figure 20. Loop Stop-ferrule: Aluminum ferrules can also be flattened on to the restraint cable and work well as a stop.

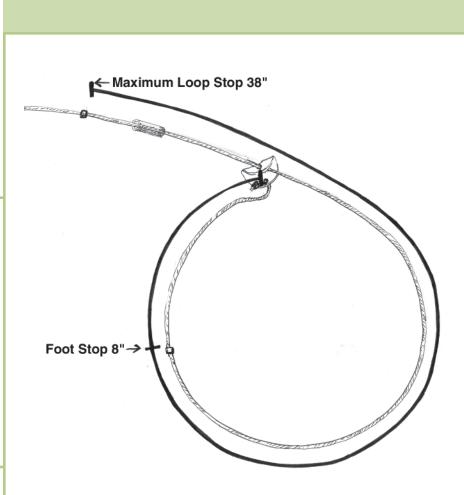


Figure 21. Loop Stops: The minimum loop stop is measured in inches from the end ferrule and keeps the loop from closing any further. The maximum loop stop is measured the same way, and assures the trapper of a loop no greater than allowed.

#### **Trap Tags - Identification**



Figure 22. Trap Tags: Cable restraints must have a metal tag stamped with the operator's name and address.

#### **Breakaway Devices**

In Wisconsin, there are two acceptable breakaway devices. One system (Figure 23), includes a "J" hook breakaway which opens on both ends with sufficient force, and the other (Figure 24), includes a ferrule breakaway which slips off the end with the same amount of force.



Figure 23. Cable Restraint—J hook: A complete cable restraint equipped with a J hook breakaway.



J hooks are commercially available at various breakaway stengths. In Wisconsin, it is required to use a 285 lb. or less J hook.



Figure 24. Cable Restraint—ferrule: A complete cable restraint equipped with a ferrule breakaway. This system requires a specialized tool needed to crimp the ferrule to the required tension. It is recommended to purchase these ferrule stops already attached to your cable.

## **Deodorizing & Conditioning**

Wild canines are basically high tech sensory devices traveling at various speeds through their environment! With olfactory senses over 100 times more sensitive than a human nose, their nose, knows! Little will get passed a wild canine unless masked in some fashion. Just think about it.... You're attempting to convince this animal with a super "smeller" to place it and its head, through a cable that was just handled and set by you! This one factor is critical in successfully capturing wild coyotes and foxes. Otherwise you will just have a number of good stories about how these telepathic, wily critters slammed on the breaks just inches in front of your set!

There are a number of suggested methods in deodorizing your sets and equipment. An easy method is to paint your cable restraints dull black, brown, or gray to blend in with the vegetation where you will be setting. Painting restraints white does not blend in with the landscape well. The resulting "white

circles" are too obvious to canines in dark-hued vegetation such as grasses, brush or cattails. Allow considerable time to allow the paint to dry and rid itself of any petroleum by-products. Dipping is easier and assures more complete coverage.

A more preferred method is to simmer the restraints in a mixture of two gallons of water with one pound of baking soda for an hour. This technique removes much of the manufacturer's oils, eliminates most odors, and gives the

aircraft cable a dull gray finish. Drying the restraints with a good quality logwood dye after they have been simmered in the water/baking soda mixture further colors them to blend better into the surroundings.

We strongly recommend that you place the restraints into individual ziplock bags to prevent contamination during transport. With other methods of canine trapping, all other tools used in the field should be deodorized and transported in a manner that keeps them odor free. Wearing clean rubber gloves and boots also helps reduce the amount of human scent at trap sites. We recommend approaching perpendicular to canine travel routes to further minimize disturbance and foreign odors.

But don't get discouraged if you have a refusal or two. No matter how diligent you are about blending in your sets and keeping scent at a minimum, you're destined to have a wild canine detect something once in

detour around your set.

That's half the beauty of attempting to outwit these super noses with four feet!

a while, apply the breaks and

### Cable Restraint Loop Size and Height

Much work has been done to determine the appropriate loop size of cable restraints used for wild canines. Wisconsin regulations require two "stops" on the cable, one we call a foot stop; the other is the maximum loop stop.

The foot stop is placed 8 inches from the closest portion of the end or ferrule stop thus allowing a  $2^{1}/_{2}$  inch diameter loop. This is designed to allow animals caught by the foot to slip free. Animals with large feet such as livestock or gray wolves have the strength to open the breakaway device and walk away.

The maximum loop stop is placed 38 inches from the closest portion of the end or ferrule stop to assure no opportunity for the set device to open larger. This results in a maximum loop diameter of 12 inches, more than ample to restrain wild canids.

Loop height is also regulated to reduce incidental catches of non-target species. The bottom of the set loop cannot be closer than 6 inches or higher than 12 inches to the hard-packed surface beneath. When setting for fox, it's recommended to go with a small loop of approximately 6 to 8 inches set 6 to 8 inches above the hard-packed surface beneath. When setting for coyote, its recommended to use a 10 to 12 inch loop set 10 to 12 inches above the hard-packed surface beneath.

Figure 26. Loop height: Loop heights and size varies depending on the intended canine, coyote or fox. Note the use of multiple swivels on the cable restraits.

13

11 10

8

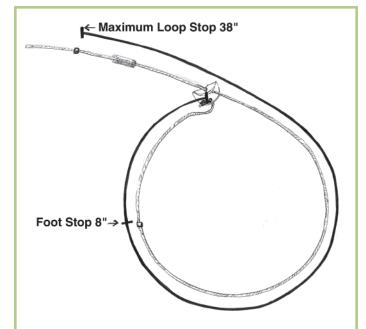
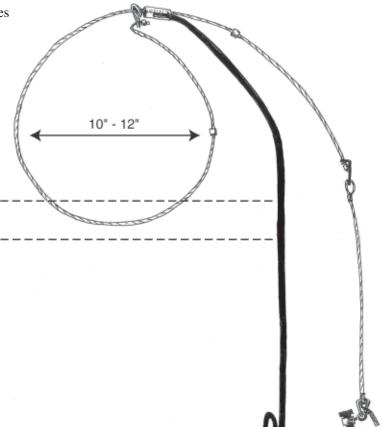


Figure 25. Maximum and minimum loop stops: Maximum and minimum loop size is easily measured by circumference. The minimum loop stop is set at 8 inches and the maximum loop stop is set at 38 inches. This results in a loop no smaller that 2<sup>1</sup>/2 inch in diameter nor larger than 12 inches in diameter.



### Fastening and Stabilizing Cable Restraints

Proper staking is extremely important when using cable restraints. Drags are not allowed because they would allow animals to become entangled and this could cause serious injuries or death. Unlike foothold restraining devices, an animal captured in a cable restraint has the use of all four feet to pull against the anchoring device. The anchoring system has to be of sufficient strength to withstand this stress. Thus it is important to use strong earth anchors and/or long, rerod stakes. We recommend double staking using 30-inch rerod as shown in Figure 27.



Figure 27. Anchor Stakes: Rerod stakes should be at least 30 inches long, have a nut welded on one end and tapered on the other. A good-sized maul is required to drive stakes of this length!

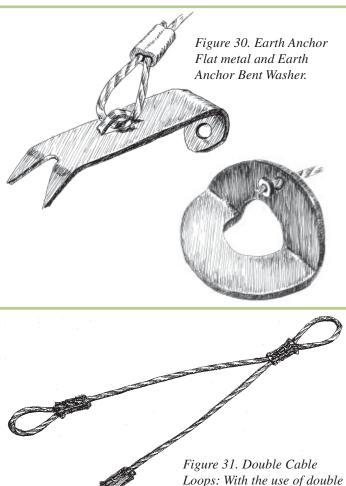


Figure 28. Double stake device: Commercially made doublestake devices allow for ease in connecting the restraint. Note the double swivel action.

Earth anchors can be employed where frost-free ground conditions allow adequate penetration. This technique also works well in good ice situations such as wetlands. After drilling a 1/2 inch diameter hole, an inserted anchor will freeze in place and when pulled, will lock on the bottom edge of thickening ice. Avoid anchoring right next to cattails or reeds, as these areas will be susceptible to thawing from sunlight.



Figure 29. Earth Anchor Tube: Various tubular or flat metal earth anchors work well in unfrozen ground.



Cable Restraints in Wisconsin

ferrules a person can construct their own double-

staking device from cable.

Wisconsin requires cable restraints to have at least one swivel. An in-line swivel (Figure 17) is recommended because it assures continued function even in thick vegetation, but an end swivel (Figures 15-16) will comply. Swivels will help to reduce injury and allow cable restraints to function even when an active canine is restrained.

It is important to securely support and stabilize cable restraints. A support system of #9 gauge wire will support the cable at the

proper height and position. Once a person has anchored the support wire into the ground it can be twisted and bent to eventually be at the desired height. If the ground is frozen, a large spike and hammer can be used to make proper anchoring holes. A plastic collar or metal "whammy" included in the construction of the restraint tool (see Figure 33) allows a person to attach the cable restraint to the heavier gauge support wire.

Figure 32. #9 gauge anchor: With the use of heavy gauge wire a person can easily develop a cable restraint support. Bending the wire twice before inserting into the ground gives additional strength and stability to the support. Note the swivels on the restraint device.

It is also important to set the cable restraint lock on the support wire at the 10 o'clock or 2 o'clock position, depending on which side of the trail you are setting from. This simple adjustment will enable gravity to keep the loops open even when disturbed by passing deer or other large animals. Use of a plastic collar or looping the cable over the support wire as depicted in Figure 34 will allow the cable to reset itself following a disturbance.



Figure 33. Plastic Collar: Another method of support is with the addition of a short piece of surgical tubing refered to as a collar.



Figure 34. #9 gauge support: Building a small N into the loop support secures the device from easily being knocked down.

### Non-entanglement —THE KEY!

Memorize the following statements and repeat them a 100 times before making your first set!

"Little is more important than assuring a restrained animal cannot become entangled. And, this is the law."

The future use of cable restraints will largely depend upon your responsible actions to prevent restrained animals from becoming entangled. Our studies show that this single, important precaution assures a safe, live capture of wild canids; a safe, live capture of other wildlife; and a safe, live capture of domestic dogs as well. The most significant attribute of cable restraints is their ability to restrain animals with little or no injury.

# How do you reduce or eliminate entanglement?

- 1. Set only where the extended cable and restrained animal cannot become entangled in any rooted, woody vegetation larger than 1/2 inch diameter. Grasses, cattails and small woody materials do not cause a problem and often times are excellent places to make good sets. If you need additional material, you can cut off larger woody vegetation and stick it back into the snow or ground. Once severed from the root system they are not considered entanglements.
- 2. Stake cable restraints solidly in areas totally devoid of large obstacles such as rocks, fences or equipment. You must remember that a restrained wild canine will have all four, powerful legs to try to pull the stake from the ground. For this reason it is recommended to use 30 inch rerod stakes or solid earth anchors. However, even with such solid, strong anchoring systems, large coyotes can pull cable or rerod anchors partially from their position. Be careful to compensate for this by providing a little extra room of non-entanglement around the set.
- Swivels, swivels and more swivels! Although the law only requires one swivel, consider adding in-line swivels to better assure continued function, reduction in damage to the cable, and continued mobility of restrained animal.

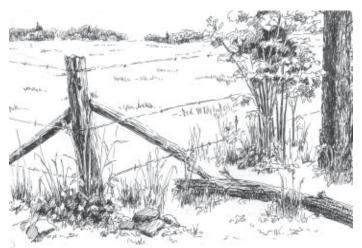


Figure 35. Entanglement comes in several forms including fences, trees, rocks, and logs.

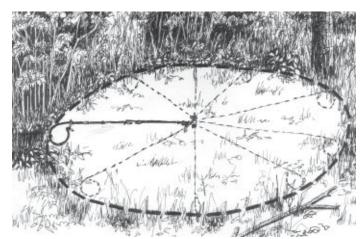


Figure 36. Restraint Circle: Although over-simplified, this is the mental image a person needs to remember when making a cable restraint set. Watch for all possible risks of entanglement.

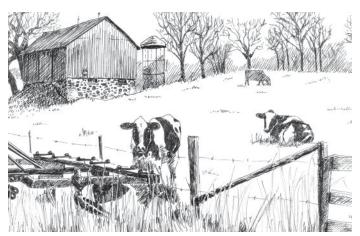


Figure 37. Respect a landowners needs and avoid making any sets where there is considerable activity. Buildings, cattle, fences, gates and machinery are a few examples.

### The Future of Cable Restraints—It's Your Call!

The future of cable restraints belongs to you! Responsible and ethical use of cable restraints on land is totally your call. When you make sets, rarely is anyone looking over your shoulder. Your decisions at each and every set will depend on your level of ethics and responsibility and will set the stage for your future. You need to know the rules and regulations; have landowner permission; know the land you're on well; and make sets where deer and domestics are a minor concern.

It's your responsibility to set loops so they target only mid-sized canines (coyotes and foxes), and that any restrained animals cannot entangle. It's your responsibility to make every effort to release incidentals carefully, and if a dog is caught, to contact the owner. It's your responsibility to collect all restraint systems when the season ends. And it will be your call to take pride in the results of using these superb tools in a responsible and ethical manner.

The learning curve is going to be nearly vertical! In just three years we've had novice cable restraint trappers go from 2-3 coyotes the first year, to more than 30 the last year. As most folks know, trappers are some of our best field naturalists and observers, as their skills and success are dependent upon keen observation. With the availability of cable restraints during the latter portion of our existing canine season, you will have the opportunity to continue trapping when most folks have gone home. Late season trapping will open a whole new world of animal

sign, animal behavior, and harvest technique that have until now been unavailable here in Wisconsin. Take the opportunity and enjoy.

One last, important suggestion. Try and learn more about cable restraints. Our statewide Wisconsin Cooperative Trapper Education program will continue to teach and train new and veteran trappers the latest discoveries in trapping. Volunteer instructors, all members of The Wisconsin Trappers Association, will teach cable restraint use in all classes. You can also expect to see trap demonstrations at all eleven WTA district meetings and at the annual fall WTA Rendezvous.

For greater detail and more in-depth knowledge about canines and the use of cable restraints we recommend you consider securing copies of the following publications: *DYNAMITE Snares and Snaring*, by Tom Krause, 3200 Lewis Road; Riverton, WY 82501 (307) 856-3830 or the *Ohio Snaring Guide* by Hal Sullivan and the Ohio State Trappers Association, 14001 Stanwood, Navarre, Ohio 44662.

For further information and to keep up to date on regulations, pick up a copy of the Wisconsin Trapping Regulations available annually in September at all WDNR Service Centers. For further information on trapper education contact the WDNR Furbearer Assistant at 608-261-6452 or check the website at: www:dnr.state.wi.us/org/land/wildlife/trap/index.htm. For further information on the WTA check their website at www.wistrap.org/.

